

ABSTRACT

A computer or other digital circuitry is used to assist in the creation of a digital model of an individual component, such as a tooth or gum tissue, in a patient's dentition. The computer receives a data set that forms a three-dimensional (3D) representation of the patient's dentition, 5 applies a test to the data set to identify data elements that represent portions of the individual component, and creates a digital model of the individual component based upon the identified data elements. Many implementations require the computer to identify data elements representing a 2D cross-section of the dentition lying in a 2D plane that is roughly parallel to or roughly perpendicular to the dentition's occlusal plane. The computer analyzes the 2D cross- 10 section to identify dentition features that represent boundaries between individual dentition components.

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